

ABSTRACT OF THE DISCLOSURE

[86] A gateway apparatus includes multiple network server cards which are synchronized with each other to allow time slot switching of synchronous data across an asynchronous medium between source and destination server cards. The gateway includes synchronization logic and a data adaptation layer which implements a protocol for formatting of synchronous serial data. The data undergoes serial to parallel conversion and is formed into per time slot subpackets which are further packetized along with context and synchronization data. The packet is transmitted through an asynchronous switch after which the packet is disassembled into its constituent subpackets and queued into play-out buffers according to each subpackets' associated context and synchronization data. The apparatus allows synchronous data to be switched from a source time slot to a destination time slot across the asynchronous switch with a known, fixed delay. The gateway apparatus requires only a single asynchronous switch to transmit data between and among both the synchronous and asynchronous domains.